

Travel with Us - A Web Platform to enhance Travel Experiences in Pune

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Abstract. Tourism is now among a major sector of social and economic development in today's world because it promotes job creation and business. Travel with Us is a web-based travel portal that aims at providing personalized, customized traveller experience to the travellers who intend to travel to Pune and its rural parts. Its group chat allows travellers to connect, make friends, share stories and plan trips together. It has stay options including hotels, hostels and homestays, as well as transport options such as public transit, rentals and ride-sharing. It also offers suggestions on sights, cultures, and local foods, and so on, With friendly user interface, and real-time updates. The Components to be used for the website are html, CSS and JavaScript, PHP and MySQL to ensure a better, smoother and clutter-free travel experience in Pune.

Keywords: Tourism, Social Network Integration, Stay options, Transportation Recommendation.

1 Introduction

Tourism is one of the largest industries in the world that generates employment and trade. The tourism sector is expected to continue to expand annually (arrivals reached 1.19 billion in 2015, compared to 528 million in 2005, with a projected growth between 1.8 and 1.8 billion by 2030 globally [1]. The tourism website system is established to construct a convenient and rapid information network between regional enterprises and tourists, and to speed up information construction of the tourism industry [2].

“Travel with us” is an innovative tourism website designed to simplify and enhance the travel experiences by integrating essential features into one platform. It offers a group chat feature that allows users to connect with fellow travelers and find travel companions. The platform provides a variety of stay options, including hotels, hostels and homestays, ensuring accommodations that suit different preferences and budget. Additionally, it suggests transportation facilities, offering recommendations for public transit. “Travel with us” is a smart and convenient tool for modern travelers. Modern travel management systems must go beyond static information and generate customized travel plans based on user preferences. Ma et al. (2017) proposed a creative travel management system that applies software reuse and abstraction techniques to generate personalized travel plans dynamically [20].

The construction of this platform will have far-reaching effects on the travel and tourism sector. It will be a central hub for all aspects of a traveler's journey [4]. Some platforms and studies

have aimed at enhancing travel experiences through provision of accommodation booking, transportation, and travel guides. Despite such advancements, available platforms tend to work in silos, compelling users to use several services alternately in order to organize their trip optimally. Furthermore, although certain platforms offer general advice on travel, they do not offer real time, customized itinerary suggestions considering user's preferences, interests, and budgetary requirements.

Websites are also a major source of information serving as a "gap" when it comes to the tourist decision on destination. Today websites have become store houses of information about tourism products and services. An informative and well-organised website is the basic requirement of Table 1 promoting, touring and researching travel and tourism bureaus. Websites for tourism should be designed taking the user's needs into account and have user-focus. This refers to the user point of view and the user requirement- given by surveys (questionnaire) and literature study-in order to design (solutions, recommendations and suggestions for designing of successful tourism sites) tourism [13].

Table 1. As per the 3rd Tourism Satellite Account (TSA), 2015-16, the percentage contribution of tourism sector to the country's Gross Domestic Product (GDP) for 2018-19 to 2022-23 is given above.

Tourism GDP	2018-19	2019-20	2020-21	2021-22	2022-23
Total Share in GDP (in %)	5.01	5.18	1.50	1.75	5.00
Direct (in %)	2.61	2.69	0.78	0.91	2.60
Indirect (in %)	2.40	2.49	0.72	0.84	2.40

"Travel with us" fills this gap by providing one-stop access wherein users can not only discover stays and transport, but also get in touch with fellow travelers and get personalized itineraries. The platform focused on developing solutions for travel problems [6]. This distinctive method allows customer to experience Pune in a more customized, social and hassle-free way, distinguishing this website from traditional travel agencies.

2 Related Works

Pal et al. (2021) introduced Travel Vogue, a web-based platform that integrates hotel, flight, and cab bookings into a single system. Their study suggests that users prefer a unified travel experience rather than navigating multiple platforms the purpose of the website is to make your travelling easy, convenient and at affordable price. You do not have to rush here and there for any resources that is required in your travelling [12].

Shrestha et al. (2021) evaluated tourism websites from a user perspective, highlighting the importance of information architecture, mobile responsiveness, and accessibility for tourism platforms. This research considers Nepal as a domain of study and specifically explores

welcomenepal.com, the official tourism portal as a reference for the study. The work is based on the study of the existing literature, user-survey, and technical testing of the website using open-source testing tools to identify user perspective, design issues, website architecture and design quality of the tourism website [13].

Kumar et al. (2024) T introduced a Travel WSite which combines real time f tracking with user submitted ct to maintain an up to date pricing, review and booking platform for travelers to help them make a better decision / have bet experience while booking for the trip. Travel Website is a Travolution award-nominated, cutting-edge web-app designed to reform the eld of travel planning and development in HTML, CSS, JavaScript and PHP. The main thing about the project is that through the application passengers will get most up-to-the minute information about ticket prices, a variety of reviews for each unit, as well as the opportunity to book without any unnecessary complications and problems. [14].

Jansen et al (2008). The act of searching for travel information in the Web was even reported, following a study with in excess of 2.4 million interactions with users searching for travel content . The prevalence of travel searching over the Web, how people search travel information over the Web, and the terms that users are using while they express their travel-related information needs is studied. [15].

Dua et al. (2023) in a MERN stack travel booking system addresses superior user authentication, real-time search, and security of transactions for better traveler experience [16]. This research also emphasizes the role of online travel sites in minimizing dependency on conventional agents and enhancing accessibility.

Several other studies on tourist information systems which have developed systems for self-driving tourists have shown the importance of providing tourists with real-time guidance, navigation and individual recommendations (Yin et al., 2008) [17].

3 Literature Review

Travel planning and tourism have significantly changed due to the advent of digital technologies, which has resulted in a number of travel assistant services. Several works have already been conducted in enhancing the user experiences for DTS, including usability issues, personalized itinerary recommendation and AI-driven itinerary planning. Karakan (2023) also indicates that customer satisfaction with travel websites is determined by usability, security, and informative content [8]. Our platform includes these aspects to increase engagement of the user.

Usability is a key factor in the success of tourism sites. Pratidina and Setyohadi (2021) examined usability experiences of tourism websites using the USE questionnaire method, discussed the importance of a user-friendly interface and navigability. Visitors are more satisfied with a tourism website if the website is easy to use and goes with what they expect [1]. This study demonstrated that well-structured websites improve user interaction and satisfaction which was easy to implement in the "Travel with Us" platform with the aim that interaction is easy.

Guo (2023) studied the design and deployment of travel sites under Java Web technology with reference to the role of backend systems in processing extensive tourist records. In their work,

they have showcased how both solid and flexible architectures contribute to performance and reliability of the website. While in the phase of establishing (or even re-establishing), a travel website we must know the knowledge involved in the web and the technology which is used by it [2]. Our system also extends these lines by considering other features including online realtime tour advice and social networking.

Coelho, and Rodrigues, 2021 Coelho, D.C., Rodrigues, T.F. An approach to personalized activity recommendations for tourist destinations in tourism web portals. Their approach relied on modelling the preferences of users and the evolution of user behaviour in order to personalise recommendations [3]. “Travel with Us” further advances this by combining it with AI-driven itinerary generation, dynamically customizing the travel plan based on the user’s inputs, such as interests, available budget, and past preferences.

Abu-AlShaer et al. (2024) explored a solution called an online tourism management system to revolutionize the mode of travel planning. Their system enables tourists to query on the itinerary most interesting to them [4]. Their tech streamlines the booking, itinerary and live travel updates. While their systems widely covered the ground, that's a gap in the social networking aspect, which our system filled with group chat, travel buddy functionalities.

Forouzandeh et al. (2022) proposed an integrated evolutionary algorithm and topsis model for tourism recommendation. Their study highlighted the efficacy of AI models in generating optimal travel schedules [7]. Our system enhances this approach by incorporating a hybrid AI-based travel planning algorithm to enhance accommodation, transportation, and itinerary recommenders.

Zhang and Jiao [19] proposed a tourist route-planning method involving a global attractiveness-based technique that specifically took users' interest into account for route planning. In their opinion, in practice, the best path should meet the tourist’s personalized requirement [5]. Likewise, Wijesinghe et al. (2021) presented “Voyager”, a smart travel advisory app with on-the-fly travel recommendations [6]. “Travel with Us” integrates these characteristics by providing real-time travel itinerary recommendation as well as social interaction upon user’s initiation.

Despite these innovations, today’s travel tools are mostly siloed and users have to hop between multiple apps to get different travel services. Many of them do not have real-time personalized travel itineraries recommendations that are taking user preferences into consideration on the fly. “Travel with Us” fills in this gap, offering a one shop solution of transport recommendations and travel partners. This end to end solution helps create a more smooth and engaging user experience for planning travel.

Yin et al. (2008) exploring geographic data, route planning and tourist service integration, it shows the aviation of Structured tourism platform in modern tourism planning [17].

4 Methodology

To implement the “Travel with Us” platform, a modular software development approach was followed, ensuring scalability and ease of maintenance. The development lifecycle included requirement analysis, design, development, testing and deployment with a focus on user-centric

design principles and technological integration. The following tools and technologies were used at various stages:

The algorithm for the “Travel with Us” platform follows a structured approach to enhance travel planning, integrating accommodation, transportation, social interaction. This work is to provide suggestions of interesting places to a trip planner tool [3] and making platform interactive so that travel will not be alone

- **Frontend Development:** HTML, CSS and JavaScript were utilized to design a dynamic and user-friendly interface. Bootstrap framework was utilized to make it compatible with various devices as well as screen sizes.
- **Backend Development:** PHP was utilized as the server-side scripting language for executing user data, session management, as well as database communication.
- **Database Management:** MySQL was utilized to store chat message, user credentials, reviews and travel preferences. The database was normalized for maximum data retrieval efficiency and scalability
- **Group Chat Integration:** An easy-to-use socket-based chat system was created to provided real-time messaging between users. This encourages socialization and helps travelers organize travel plans and make travel groups.
- **Filtering & Recommendation System:** Filters (location, cost, ratings) are provided for users to apply for accommodations and transportation. A recommendation system ranks possibilities by past usage patterns and popularity ratings. Fig 1 Shows the Schematic Flow of Theoretical Structure.

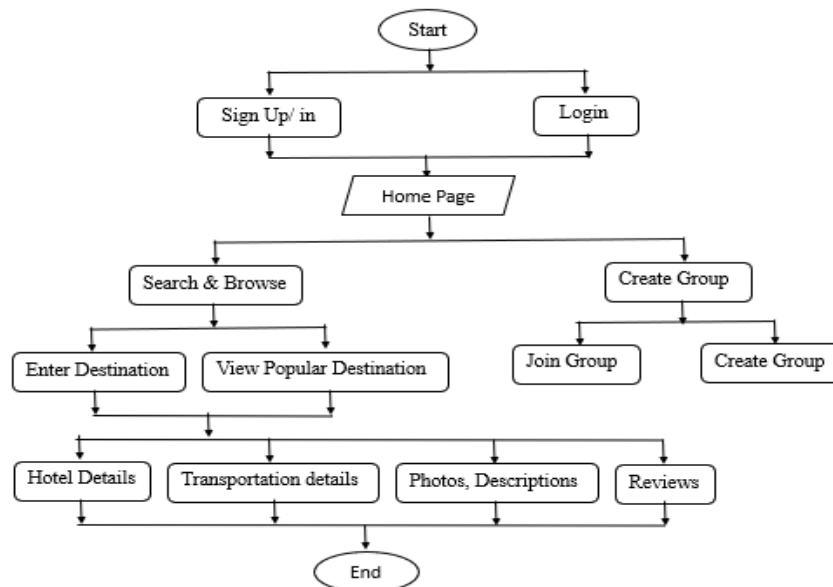


Fig.1. Schematic Flow of Theoretical Structure.

Steps for using platform:

Step I: User Registration and Authentication

1. Start
2. Display the homepage with options for Login and Sign Up
3. User selects an option:
 - If new user → Proceed to registration
 - If existing user → Proceed to login
4. For registration:
 - Collect user details (name, email, password, interests)
 - Store encrypted credentials in the database.
5. For login:
 - Authenticate credentials with the database
 - If valid → Grant access to the platform
 - If invalid → Prompt for re-entry or password reset

Step II: Travel Service Selection

1. After login, the user navigates to the main dashboard
2. User selects one of the following services:
 - Accommodation (hotels, hostels, homestays)
 - Transport (public transit, rentals, shared rides)
 - Group Chat (to find travel buddies)
3. Based on selection, retrieve and display available options from the database

Step III: Searching and Filtering Travel Options

1. User applies filters for refining search results:
 - For accommodation: Price, rating, location, availability
 - For transport: Mode (bus, metro, rental car), cost, travel time
2. System processes filters and displays matching results with images, descriptions, and user ratings.

3. User selects a preferred option

Step IV: Social Interaction & Travel Buddy Feature

1. User enters the **group chat section**.
2. The system suggests **relevant travel groups** based on:
 - Destination, interests, and preferred travel dates
3. User joins a group and engages in conversation
4. Users can **connect, share experiences, and coordinate trips**.

Step V: Future Enhancements

1. Real-time booking for accommodations and transport.
2. Local guide registration and on-demand matching.
3. Event recommendations based on user location and interests.
4. User review system for better decision-making.

5 Results

The Travel with us platform effectively simplifies travel planning by integrating accommodation, transport, social interaction. "A usability study by Komariah et al. (2023) compared the UI/UX of travel platforms and found that higher usability scores correlate with increased customer retention [10]. Our platform follows similar usability principles to enhance user experience."

- **Connecting Travelers:** The group chat feature enables users to find travel companions and share experiences.
- **Travel Services:** Users can explore various stay options and transportation methods.
- **Convenience:** The platform streamlines planning, eliminating the need for multiple applications.

In this system, Fig. 2: Homepage Mockup of "Travel with Us" showcasing the Pune Success Point Sarah Baug a famous place of interest in Pune displaying an appealing image of the place as well as user engagement features. Fig. 3 shows a web slider leaving out popular spots in Pune such as Friendship Garden, Pataleshwar Cave Temple and Vetal Tekdi, giving users a brief glimpse of the important tourist attractions in Pune. Fig. 4 exhibits the travel plan design user

interface, wherein the user interface is configured to support a user in planning his or her travel by selecting a route, selecting a destination, creating a group, and planning a budget.



Fig.2. Webpage Mockup of "Travel with Us" - Featuring Pune’s Popular Destination "Saras Baug."



Fig.3. Web Slider Showcasing Pune’s Popular Tourist Attractions - Friendship Garden, Pataleshwar Cave Temple, and Vetal Tekdi.

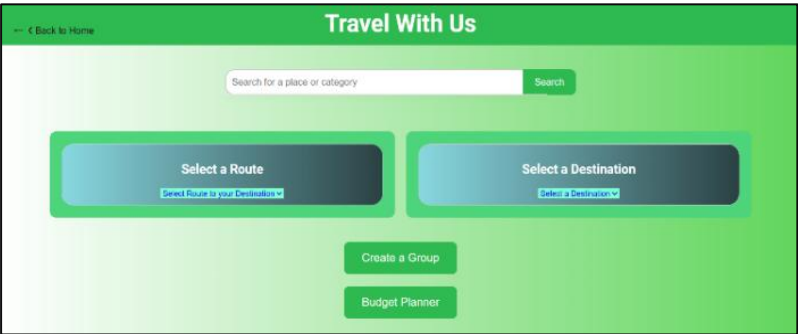


Fig.4. Travel Planning Interface with Route, Destination, Group Creation, and Budget Planner Options.

6 Discussion

- **Simplified Travel Planning:** By merging essential Travel services, the platform reduces the complexity of trip organization.
- **Integrated Approach:** Unlike traditional travel platforms, which focus on specific services, this system provides a comprehensive solution for travelers.
- **Potential Enhancements:** Future improvements could real-time booking, local event recommendations, and user reviews for better decision-making.

7 Future Scope

- **Local Guide Features:**
 1. Guide Registration and verification.
 2. User- Guide matching.
 3. Real time Guide booking.
 4. Rating and reviews system.
 5. Connect local businesses with travelers through platform
- **Chatbot Implementation:**

Chatbots have been successfully implemented in travel services, as demonstrated by Modhiya and Tailor (2021), who developed a chatbot for Goa tourism to streamline bookings and information retrieval [9]. Similarly, 'Travel with Us' Will aim to integrate AI-based itinerary suggestions.
- Future developments of the "Travel with Us" platform could integrate advanced semantic web and AI-driven assistants, similar to the Virtual Travel Agent System proposed by Yueh et al. (2007), to enhance real-time decision-making for travelers [19].
- Future enhancements should focus on improving security and responsiveness, as emphasized in studies of cross-national tourism platforms (Maurya et al., 2023) [11].
- we plan to integrate machine learning algorithms for personalized travel recommendations, as suggested by Dua et al. (2023), to enhance the platform's adaptability and predictive capabilities [16].
- Incorporating GIS-based navigation features and real-time travel suggestions, similar to the self-drive tourism system proposed by Yin et al. (2008), can further refine the user experience [18].

8 Conclusion

The Travel With Us platform streamlines travel planning by integrating accommodation, transportation, social interaction into a single system. It enhances user experience by providing personalized recommendations and travel companionship, reducing the need for multiple applications. Future enhancement, such as real time booking, user reviews, and local event suggestions, could further improve its functionality. This research was based on multidimensional preferences of tourist and ongoing development [5], the platform has the potential to become a comprehensive and user-friendly travel assistant.

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